

CLAIMS

Claim 1 (previously presented) A fully or partially crosslinked olefinic thermoplastic elastomer composition comprising 10 to 90 parts by weight of a crystalline polyolefin (a), 90 to 10 parts by weight of an olefin-based copolymer rubber (b) (the total amount of the components (a) and (b) being 100 parts by weight) and 3 to 100 parts by weight of a paraffinic mineral oil softening agent (c) having an evaporation loss of 0.4% by weight or less at a condition of 200 °C, atmospheric pressure and 1 hour and having a kinetic viscosity (40 °C) of 50 to 250 cSt.

Claim 2 (original) A thermoplastic elastomer composition as defined in Claim 1, wherein the mineral oil softening agent (c) has a viscosity index of 90 to 110.

Claim 3 (original) A thermoplastic elastomer composition as defined in Claim 2, wherein the mineral oil softening agent (c) has a flash point of 200 to 290 °C and a pour point of -20 to -10 °C.

Claim 4 (previously presented) A thermoplastic elastomer composition as defined in Claim 1, wherein the thermoplastic elastomer composition is cross-linked with a crosslinking agent which is an organic peroxide.

Claim 5 (previously presented) A thermoplastic elastomer composition as defined in Claim 4, wherein the thermoplastic elastomer composition has a gel content which is 98% or less.

Claim 6 (previously presented) A thermoplastic elastomer composition as defined in Claim 1, wherein the thermoplastic elastomer composition is cross-linked with a crosslinking agent which is a phenolic curative.

Claim 7 (previously presented) A thermoplastic elastomer composition as defined in Claim 6, wherein the thermoplastic elastomer composition has a gel content which is 98% or less.

Claim 8 (previously presented) A thermoplastic elastomer composition as defined in Claim 1, wherein the thermoplastic elastomer composition has a haze value determined at a condition of 100 °C and 3 hours according to the prescription of A method of DIN 75201 which is 3% or less.

Claim 9 ^{withdrawn} (~~original~~) A method for manufacturing an olefinic thermoplastic elastomer composition, which comprises subjecting to dynamic heat treatment in the presence of a crosslinking agent 10 to 90 parts by weight of a crystalline polyolefin (a), 90 to 10 parts by weight of an olefin-based copolymer rubber (b) (the total amount of the components (a) and (b) being 100 parts by weight) and 3 to 100 parts by weight of a paraffinic mineral oil softening agent (c) having an evaporation loss of 0.4% by weight or less at a condition of 200 °C, atmospheric pressure and 1 hour and having a kinetic viscosity (40 °C) of 50 to 250 cSt.

Claim 10 ^{withdrawn} (~~original~~) An olefinic thermoplastic elastomer composition obtainable according to the manufacturing method as defined in Claim 9.

Claim 11 (previously presented) A thermoplastic elastomer composition as defined in Claim 1 which is produced by the step of static heat treatment, subsequent to dynamic heat treatment, under the following conditions:

$$Q \geq 0.1 \text{ and } t \geq 2^{-(T-110)/10}$$

wherein Q is a quantity ($\text{m}^3/(\text{hour} \cdot \text{kg})$) of hot air supplied upon drying per the unit weight of the substance to be treated, t is a heat treatment time (hour) and T is a temperature ($^{\circ}\text{C}$) of the hot air just before hitting the substance to be treated.

Claim 12 (previously presented) A fully or partially crosslinked olefinic thermoplastic elastomer composition comprising 10 to 90 parts by weight of a crystalline polypropylene resin (a'), 90 to 10 parts by weight of an olefin-based copolymer rubber (b) (the total amount of the components (a') and (b) being 100 parts by weight), 3 to 30 parts by weight of a polyethylene resin (d) and 3 to 100 parts by weight of a paraffinic mineral oil softening agent (c) having an evaporation loss of 0.4% by weight or less at a condition of 200°C , atmospheric pressure and 1 hour and having a kinetic viscosity (40°C) of 50 to 250 cSt.

Claim 13 (previously presented) A thermoplastic elastomer composition as defined in Claim 12 which is produced by the step of static heat treatment, subsequent to dynamic heat treatment, under the following conditions:

$$Q \geq 0.1 \text{ and } t \geq 2^{-(T-110)/10}$$

wherein Q is a quantity ($\text{m}^3/(\text{hour} \cdot \text{kg})$) of hot air supplied upon drying per the unit weight of the substance to be treated, t is a heat treatment time (hour) and T is a temperature ($^{\circ}\text{C}$) of the hot air just before hitting the substance to be treated.

withdrawn uet
Claim 14 (~~original~~) An electric apparatus or transporting machine including a member comprising a thermoplastic elastomer composition as defined in Claim 1 or Claim 12 and a member comprising glass.

withdrawn uet
Claim 15 (~~original~~) An electric apparatus or transporting machine as defined in Claim 14, wherein said member comprising a thermoplastic elastomer composition and said member comprising glass are installed within a same enclosed space.

withdrawn uet
Claim 16 (~~original~~) An electric apparatus or transporting machine as defined in Claim 14, wherein said member comprising a thermoplastic elastomer composition and said member comprising glass are installed 1 meter or less apart at the most adjacent portion.

Claim 17 (previously presented) An olefinic thermoplastic elastomer composition which is produced by the step of dynamically heat treating a mixture including 40 to 85 parts by weight of an ethylene-based copolymer rubber (A), 60 to 15 parts by weight of an olefinic resin (B) and 45 parts by weight or less of a softening agent (C) (the total amount of the components (A), (B) and (C) being 100 parts by weight) in the presence of a crosslinking agent and which gives a gloss value of 80% or more and a haze value of 10% or less on glass plate when subjected to the fogging test at a condition of 100 °C and 3 hours according to the prescription of A method of DIN 75201 using 10 g of the pellets.

Claim 18 (previously presented) A thermoplastic elastomer composition as defined in Claim 17 which is produced by the step of static heat treatment, subsequent to dynamic heat treatment, under the following conditions:

$$Q \geq 0.1 \text{ and } t \geq 2^{-(T-110)/10}$$

wherein Q is a quantity ($\text{m}^3/(\text{hour} \cdot \text{kg})$) of hot air supplied upon drying per the unit weight of the substance to be treated, t is a heat treatment time (hour) and T is a temperature (°C) of the hot air just before hitting the substance to be treated.

Claim 19 (original) A thermoplastic elastomer composition as defined in Claim 17, wherein the crosslinking agent is a bifunctional organic peroxide having two peroxide bonds in one molecule and the decomposition product thereof, diol, remains in the pellets in a concentration of 30 ppm or less.

Claim 20 (previously presented) A thermoplastic elastomer composition which is produced by the step of static heat treatment, subsequent to dynamic heat treatment, under the following conditions:

$$Q \geq 0.1 \text{ and } t \geq 2^{-(T-110)/10}$$

wherein Q is a quantity ($\text{m}^3/(\text{hour} \cdot \text{kg})$) of hot air supplied upon drying per the unit weight of the substance to be treated, t is a heat treatment time (hour) and T is a temperature ($^{\circ}\text{C}$) of the hot air just before hitting the substance to be treated.

Claim 21 ^{withdrawn} (~~original~~) A molding obtainable by molding a thermoplastic elastomer composition as defined in any one of Claims 17 to 20.

withdrawn^{all}
Claim 22 (~~original~~) Moldings as defined in Claim 21 which are interior parts for automobile.

withdrawn/currently Amended^{all}
Claim 23 (~~currently amended~~) A method for manufacturing an olefinic thermoplastic elastomer composition, which comprises subjecting a mixture including 40 to 85 parts by weight of an ethylene-based copolymer rubber (A), 60 to 15 parts by weight of an olefinic resin (B) and 45 parts by weight or less of a softening agent (C) [the total amount of the components (A), (B) and (C) being 100 parts by weight] to dynamic heat treatment in the presence of a crosslinking agent and to subsequent static heat treatment under the following conditions:

$$Q \leq 0.1 \text{ and } t \leq 2^{-(T-110)/10}$$

$$Q \geq 0.1 \text{ and } t \geq 2^{-(T-110)/10}$$

wherein Q is a quantity ($\text{m}^3/(\text{hour} \cdot \text{kg})$) of hot air supplied upon drying per the unit weight of the substance to be treated, t is a heat treatment time (hour) and T is a temperature ($^{\circ}\text{C}$) of the hot air just before hitting the substance to be treated.

Claim 24 ^{withdrawn} (~~previously presented~~) A method for manufacturing

the fully or partially crosslinked olefinic thermoplastic elastomer composition as defined in claim 1, which comprises subjecting to dynamic heat treatment in the presence of a crosslinking agent 10 to 90 parts by weight of a crystalline polyolefin (a), 90 to 10 parts by weight of an olefin-based copolymer rubber (b) (the total amount of the components (a) and (b) being 100 parts by weight) and 3 to 100 parts by weight of a paraffinic mineral oil softening agent (c) having an evaporation loss of 0.4% by weight or less at a condition of 200 °C, atmospheric pressure and 1 hour and having a kinetic viscosity (40 °C) of 50 to 250 cSt.